

Table Annual STD cases and the four commonest STDs in Zambia

	1987	1988	1989
Total Cases	109,496	101,286	84,180
No. STD Clinics	28	38	40
Gonorrhoea	27,676 (25)*	25,705 (25)	20,581 (24)
Chancroid	21,369 (16)	17,486 (17)	14,569 (17)
Syphilis	16,571 (15)	18,972 (18)	13,364 (16)
Trichomoniasis	6,547 (6)	5,039 (5)	5,995 (7)

\*Figures in brackets denote percentage of total annual cases.

1987.<sup>1</sup> As a follow-up, we reviewed and analysed monthly STD reports from clinics under the National STD Control Programme and now report STD trends from 1987 to 1989.

The table shows the number of STD clinics, annual STD cases and the four commonest STDs. In spite of the increase in the number of clinics from 28 to 40, there has been a decline in annual cases of STDs after 1987. Although the fact that nearly all clinics reported a decline suggests a genuine decline in STDs rather than just declining attendance at the clinics, it would still be useful to find out whether private practitioners and hospitals which do not report STDs to the National STD Control programme have also seen a decline in STDs before crediting the decline entirely to the ongoing campaigns by the STD and AIDS Control Programmes.

Gonorrhoea, chancroid, syphilis and trichomoniasis are the four commonest STDs in decreasing order of frequency (table). Although gonorrhoea has previously been reported,<sup>1,2</sup> and still continues, to be the commonest STD in Zambia, it is pertinent to note that following the exponential upsurge in cases of chancroid and syphilis in 1987,<sup>1</sup> the incidence of genital ulceration has outstripped that of genital discharge/urethritis: genital ulcers accounted for 59% of 10,089 new cases of STD at the University Teaching Hospital, Lusaka, in 1989; and the annual cases of chancroid and syphilis combined, which previously were much less than gonorrhoea, have since surpassed those of gonorrhoea. As genital ulceration has been shown to be a risk factor for transmission<sup>3</sup> and acquisition of HIV,<sup>3,4</sup> the relative rise in genital ulceration is a cause for concern. Further work is required in order to elucidate factors underlying these trends.

In view of epidemiologic similarities between conventional STDs and HIV infection, the high incidence of STDs is an indicator of continued sexual transmission of HIV. And given the high prevalence of HIV among STD patients<sup>5,6</sup> and the impact of concomitant HIV infection on conventional STDs,<sup>7</sup> the current STD trends have serious implications for both the STD and AIDS control programmes.

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### Sexually transmitted infections in selected high risk populations in Cameroon

The renewed interest in sexually transmitted diseases (STDs) lies both in their increasing incidence and morbidity associated with them, as well as the fact that they enhance transmission of the human immunodeficiency virus (HIV).<sup>1-4</sup>

We wanted to study the prevalence of *Chlamydia trachomatis*, *Neisseria gonorrhoea*, syphilis and HIV infections in parturients, pregnant women and STD clinic attenders in Cameroon in order to develop a targetted STD/HIV intervention programme.

The study was carried out from March to May 1990, and August to October 1990. Cervical specimens were taken from 69 randomly selected parturients in the Laquintinie Hospital, Douala. We also recruited 192 patients (101 female and 91 male) from the STD clinic in Elig-Essono, Yaounde. Urethral samples were obtained and stored using the appropriate swabs and media (Abbott Laboratories, Wiesbaden, Germany). We tested 135 STD patients for *Chlamydia trachomatis* infection (69 men and 66 women), 120 (66 women and 54 men) for *Neisseria gonorrhoea* while only (47 women and 46 men) agreed to HIV testing.

In addition, 350 pregnant women attending the central antenatal clinic in Yaounde were recruited. The 192 STD patients and the 350 pregnant women were tested for antibodies to *Treponema pallidum*.

Chlamydia and gonorrhoea antigen detection were performed with commercial enzyme-immunoassays (Chlamydiazyme and Gonozyme from Abbott Laboratories, Wiesbaden). Anti-HIV antibody screening was performed with the Abbott recombinant HIV-1/2 enzyme immuno-assay. Positive samples were confirmed on line immuno assay and HIV-1 western blotting (Organon Teknika, Teknika, Turnhout, Belgium). Syphilis testing was done by the haemagglutination test (TPHA) obtained from Behring, Marburg, Germany (Celloghost Syphilis H).

The results obtained are shown in the table. Sex prevalence among the STD patients for

Table Prevalence of infection with various pathogenic agents in parturients, antenatal clinic attendants and STD clinic attendants in Cameroon (1990)

	Parturients	ANC attenders	STD clinic attenders
<i>C. trachomatis</i>			
No tested	69	ND	135
No positive	30	ND	24
% positive	43.3%	ND	17.8%
95% CL	31.6-55	ND	11.3-24.3
<i>N. gonorrhoea</i>			
No tested	69	ND	120
No positive	23	ND	16
% positive	33.3%	ND	13.3%
95% CL	22.2-44.4	ND	7.2-19.4
Reactive TPHA			
No tested	ND	350	192
No positive	ND	61	41
% positive	ND	17.4	21.4%
95% CL	ND	13.4-21.4	15.6-27.2
HIV-1			
No tested	ND	ND	93
No positive	ND	ND	6
% positive	ND	ND	6.5%
95% CL	ND	ND	1.5-11.5

CL = confidence limits, ND = not done.

chlamydial antigens was 15.9% in men (11/69) and 19.7% in women (13/66), while that for *Neisseria gonorrhoea* antigens was 16.7% in men (9/54) and 10.7% in women (7/66). Infection with both agents was present in nineteen parturients (27.5%) and two of 120 STD clinic attendants tested (1.7%).

Sex prevalence for TPHA reactivity among STD patients, was 19.8% for men (18/91) and 22.8% for women (23/101).

Of the 93 subjects who consented to HIV testing, six were positive for HIV-1 (6.5%) and none for HIV-2. Among the positives were five of 46 men (10.9%) and one of 47 women (2.1%). None of these 6 HIV-positive subjects tested positive on either chlamydiazyme or gonozyme. However, three of them (50%) were TPHA reactive.

Our study confirms that *Chlamydia trachomatis* is common in certain populations in Cameroon and that for both chlamydia and gonorrhoea, the prevalence in our parturients was very high. This may reflect the asymptomatic nature of these infections in women. Those we tested also belong to the lowest socioeconomic classes. Self medication in the STD clinic attenders may explain why their prevalences are lower than those found in the parturients.

TPHA reactivity was slightly lower in antenatal clinic attendants (17.4%) than in the STD clinic attendants (21.4%) but the difference was not significant ( $p > 0.05$ ).

The prevalence of HIV infection in the STD clinic attendants was 6.5%; with a strong suggestion of an association between a positive TPHA reactivity and a positive HIV status, as reported by Zekeng *et al.*<sup>5</sup>

The potential effects of these infections such as infertility, ectopic pregnancy, infant blindness, mental retardation, and the fact that these are preventable, imposes an urgency for intervention.<sup>1-4</sup>

An STD/HIV control programme is being developed with the collaboration of women's groups, STD clinics and primary health care centres.

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### Carriage of *Chlamydia trachomatis* by elderly people

To determine the detection rate of *Chlamydia trachomatis* in culture negative urine samples, non invasive methods have been successfully applied in the past.<sup>1,2</sup> We employed the amplified ELISA technique ("IDEIA", Boots Celltech) to detect *Chlamydia trachomatis* in urine samples which showed 50 pus cells/ $\mu$ l on microscopy but had no growth or contaminants only on culture.

Urine specimens (N = 249) meeting our criteria irrespective of age and sex of the patients were examined by this method on the centrifuged deposit. There were 10 positive samples (4.0%), of which three were from male and seven from female patients. Two patients were, however, over the age of 65 years.

The purpose of this communication is to draw attention to some interesting questions raised by this small scale study like:

(1) Do we know the true incidence of chlamydia in the elderly population? It is important to bear in mind in this context that contrary to